

NTP Historical Controls Report

By Route and Vehicle

F 344/N Tac RATS

June 2013

REPORT DESCRIPTION

This report shows the tumor rates of control group animals from selected studies. The studies used are shown on the Study Summary page.

This report is broken up into sections based on the route and vehicle used to deliver the chemical. The Table of Contents on Page 3 shows the different Route/Vehicle combinations. To see the data from all routes and vehicles combined into one set, you must run the "All Routes" report.

The individual tumor rates shown on the data pages of the report relate to the Study Summary page as follows: the tumor rates are shown in the same order as the Study Summary page, except that they are grouped horizontally in sets of three, with the males in the first set of three and the females in the second set. For example if the study summary showed the studies like this:

Male
M1
M2
M3
M4
M5
Female
Female F1
F1
F1 F2

the data would be shown as:

	Male			Female	
M1	M2	М3	F1	F2	F3
M4	M5		F4	F5	

Directly beneath the individual tumor rates on the data pages are the overall totals for that tumor/site combination. This includes the total tumors/animals, the overall mean (in parentheses), the mean of the study means, and the standard deviation of the study means.

Studies with no control animals of a particular gender are listed on the summary page with the Number of Animals shown as zero and the Start Date and Length of Study shown as "N/A". On the data pages there are blank spaces where tumor rates for these studies would normally be found, so that the male and female rates for the remaining studies can be easily compared.

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Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Page: 4

Report Date: 06/12/2013

Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical			
					Male					
Battelle Northwest	056031105	05/08/06	729	50(5)	17(663)	532.6	Cobalt			
	Female									
Battelle Northwest	056031105	05/08/06	730	50(5)	35(688)	350.7	Cobalt			

Species: RATS

Strain: F 344/N Tac

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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Report Date: 06/12/2013

Length of Study: CHRONIC

Male **Female** #All Organs: **Benign Tumors** 47/50 (94%)44/50 (88%)**Overall Incidence** Total 47/50 (94%) Mean 94% SD 0% Total 44/50 (88%) Mean 88% SD 0% #All Organs: **Malignant Tumors** 31/50 (62%)25/50 (50%)**Overall Incidence** Total 31/50 (62%) Mean 62% SD 0% Total 25/50 (50%) Mean 50% SD 0% #All Organs: **Malignant and Benign Tumors** 50/50 (100%) 48/50 (96%)Overall Incidence Total 50/50 (100%) Mean 100% SD 0% Total 48/50 (96%) Mean 96% SD 0% #All Organs: Hemangioma 0/50 (0%)0/50 (0%)**Overall Incidence** SD 0% Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Mean 0% **#All Organs:** Hemangiosarcoma 0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/50 (0%) Mean 0% SD 0% Total 1/50 (2%) Mean 2% SD 0% **#All Organs:** Hemangiosarcoma or Hemangioma 0/50 (0%)1/50 (2%)**Overall Incidence** Total 0/50 (0%) Mean 0% SD 0% Total 1/50 (2%) Mean 2% SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female							
#All Organs: Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated 21/50 (42%) Overall Incidence Total 21/50 (42%) Mean 42% SD 0% Total 16/50 (32%) Mean 32% SD 0%														
Overall Incidence	Total	21/50 (42%)	Mean 42%	SD 0%	Total	16/50 (32%)	Mean 32%	SD 0%						
#All Organs: Mesothelioma: Benign, Mali	gnant, NOS													
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%						
#All Organs: Mesothelioma: Malignant		2/50 (4%)				0/50 (0%)								
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%						
#All Organs: Osteoma		0/50 (0%)				0/50 (0%)								
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%						
#All Organs: Osteosarcoma or Osteoma		0/50 (00)				0/50 (00/)								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%						
*Adrenal Cortex: Adenoma														
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%						

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female						
*Adrenal Medulla: Pheochromocytoma Benign 15/50 (30%) 6/50 (12%) Overall Incidence Total 15/50 (30%) Mean 30% SD 0% Total 6/50 (12%) Mean 12% SD 0%													
Overall Incidence	Total	15/50 (30%)	Mean 30%	SD 0%	Total	6/50 (12%)	Mean 12%	SD 0%					
*Adrenal Medulla: Pheochromocytoma Ma	lignant												
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%					
*Adrenal Medulla: Pheochromocytoma: Be	enign, Complex	Malignant, NOS 17/50 (34%)				6/50 (12%)							
Overall Incidence	Total	17/50 (34%)	Mean 34%	SD 0%	Total	6/50 (12%)	Mean 12%	SD 0%					
#Bone: Osteoma		0/50 (0%)				0/50 (0%)							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%					
#Bone: Osteosarcoma or Osteo		0/50 (0%)				0/50 (0%)							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%					
*Brain: Astrocytoma Malignant		4/50 (20%)				0/50 (00/)							
		1/50 (2%)				0/50 (0%)							

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male			Female			
*Brain: Fibrous Histiocytoma		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Glioma		0/50	(00/)				0/50 (00/)			
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Brain: Granular Cell Tumor Benigr		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	` ,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Oligodendroglioma, Glioma		toma					0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Clitoral/Preputial Gland: Adenoma		•••••								
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	2/49 (4%) 2/49 (4.08%)	Mean 4.08%	SD 0%	
*Clitoral/Preputial Gland: Carcinoma		2/50	(4%)				4/49 (8%)			
Overall Incidence	Total	2/50 (4%)	` ,	Mean 4%	SD 0%	Total	4/49 (8.16%)	Mean 8.16%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male			Female				
*Clitoral/Preputial Gland: Carcinoma or Adenoma		3/50 (6%)				6/49 (12%)				
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	6/49 (12.24%)	Mean 12.24%	SD 0%		
#Ear: Neural Crest Tumor										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Harderian Gland: Carcinoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Harderian Gland: Carcinoma or Adenoma		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Heart: Schwannoma Malignant										
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Intestine Large: Colon/Rect Adenoma						(00)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male				Female					
#Intestine Large: Colon/Rectum: Carcinoma or Adenoma													
		0/50 (0	1%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)		n 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				
#Intestine Small: Ileum: Carcinoma													
		,	1%)				1/50 (2%)						
Overall Incidence	Total	0/50 (0%)		n 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%				
#Intestine Small: Jejunum: Carcinoma													
Overall Insidence	Tatal	,)%) Maa	- 00/	CD 00/	Tatal	1/50 (2%)	Mana 20/	CD 00/				
Overall Incidence	Total	0/50 (0%)		n 0% 	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%				
#Intestine Small: Site Unspec Carcinoma	ified:												
		0/50 (0	1%)				2/50 (4%)						
Overall Incidence	Total	0/50 (0%)		n 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%				
#Intestine Small: Site Unspec Carcinoma or Adenoma													
		0/50 (0	1%)				2/50 (4%)						
Overall Incidence	Total	0/50 (0%)		n 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%				
*Islets, Pancreatic: Adenoma													
		,	1%)				0/50 (0%)						
Overall Incidence	Total	0/50 (0%)		n 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%				

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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		Male			Female			
	2/50 (4%)				1/50 (2%)			
Total	2/50 (4%)	Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
	2/50 (4%)				1/50 (2%)			
	2/50 (4%)	Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
	2/22 (221)				(201)			
-	, ,		OD 00/	T	` '		00.00/	
	· ,			I otal	0/50 (0%)	Mean 0%	SD 0%	
	0/50 (0%)				0/50 (0%)			
Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
	0/50 (0%)				0/50 (0%)			
Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
	0/50 (0%)				0/50 (09/)			
Total	` '	Mean 0%	SD 0%	Total	` '	Mean 0%	SD 0%	
	Total Total	Total 2/50 (4%) 2/50 (4%) Total 2/50 (4%) 0/50 (0%) Total 0/50 (0%) Total 0/50 (0%) Total 0/50 (0%) Total 0/50 (0%) 0/50 (0%)	2/50 (4%) Total 2/50 (4%) Mean 4% 2/50 (4%) Total 2/50 (4%) Mean 4% 0/50 (0%) Total 0/50 (0%) Mean 0% 0/50 (0%) Total 0/50 (0%) Mean 0% 0/50 (0%) Mean 0%	2/50 (4%) Total 2/50 (4%) Mean 4% SD 0% Total 2/50 (4%) Mean 4% SD 0% Total 0/50 (0%) Mean 0% SD 0% 0/50 (0%) Mean 0% SD 0%	Total 2/50 (4%) Mean 4% SD 0% Total 2/50 (4%) Mean 4% SD 0% Total 7	Total 2/50 (4%) Mean 4% SD 0% Total 1/50 (2%) 2/50 (4%) Mean 4% SD 0% Total 1/50 (2%) Total 2/50 (4%) Mean 4% SD 0% Total 1/50 (2%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%) Total 0/50 (0%) Mean 0% SD 0% Total 0/50 (0%)	Total 2/50 (4%) Mean 4% SD 0% Total 1/50 (2%) Mean 2% 2/50 (4%)	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male			Female			
*Liver: Hemangioma									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Ac	lonomo								
Alveolar/Bronchiolar Ac	ienoma	2/50 (4%)				2/50 (4%)			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%	
*Lung: Alveolar/Bronchiolar Ca Overall Incidence	rcinoma or Alve	eolar/Bronchiolar Aden 2/50 (4%) 2/50 (4%)	oma Mean 4%	SD 0%	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	
*Lung: Fibrous Histiocytoma									
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Lung: Squamous Cell Carcino						0/50			
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Lymph Node: Fibrous Histiocytoma		0/50 (0%)				0/50 (0%)			
						U/3U (U/0)			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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				Male				Female	
#Mammary Gland: Adenoma									
		0/50	(0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Mammary Gland: Carcinoma									
			(2%)				2/50 (4%)		
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%
#Mammary Gland: Carcinoma or Adenoma		4/50	(00()				0/50 (00/)		
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	3/50 (6%)	Maan 60/	SD 0%
		1/50 (2%)					3/50 (6%)	Mean 6%	3D 0%
#Mammary Gland: Fibroadenoma		1/50	(20/)				49/F0 /269/\		
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	18/50 (36%) 18/50 (36%)	Mean 36%	SD 0%
#Mammary Gland: Fibroma, Fibroadenoma o									
		1/50	(2%)				19/50 (38%)		
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	19/50 (38%)	Mean 38%	SD 0%
#Mammary Gland: Fibroma, Fibroadenoma,			(4%)				20/50 (40%)		
Overall Incidence	Total	2/50 (4%)	· · · /	Mean 4%	SD 0%	Total	20/50 (40%)	Mean 40%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female			
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Papilloma Squamous or Papilloma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		
#Oral Cavity (Oral Mucos		nx, Tooth, Gingiva):								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
		Squamous, or Papilloma 0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Oral Mucosa: Squamous Cell Carcine	oma	0/50 (00/)				0/50 (0%)				
		0/50 (0%)		05 00/		` '		05.00/		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
Overall Incidence *Pancreas: Adenoma	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Pancreas:	Total Total	, ,	Mean 0% Mean 0%	SD 0%	Total Total	` '	Mean 0% Mean 0%	SD 0%		
*Pancreas: Adenoma	Total	0/50 (0%)				0/50 (0%)				

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
*Pancreas: Mixed Tumor Malignant		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
Pituitary Gland: Pars Distali Adenoma	s or Unspec	ified Site:						
Overall Incidence	Total	27/50 (54%) 27/50 (54%)	Mean 54%	SD 0%	Total	29/50 (58%) 29/50 (58%)	Mean 58%	SD 0%
Pituitary Gland: Pars Distali Carcinoma or Adenoma		ified Site:						
Overall Incidence	Total	27/50 (54%) 27/50 (54%)	Mean 54%	SD 0%	Total	29/50 (58%) 29/50 (58%)	Mean 58%	SD 0%
*Prostate: Adenoma		1/50 (2%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%				
Prostate: Carcinoma or Adenoma	••••							
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%				
*Salivary Glands: Adenoma	•••••							
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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eport Date: 06/12/20	1.
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				Male			Female			
*Salivary Glands: Carcinoma or Adenoma			(20()				0/50 (00)			
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skeletal Muscle: Fibrous Histiocytoma		0/50	(00/)				0/50 (00/)			
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Adenoma		2/50	(4%)				1/50 (2%)			
Overall Incidence	Total	2/50 (4%)	(470)	Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Skin: Basal Cell Adenoma or	Basosquamous	•	(4%)				1/50 (2%)			
Overall Incidence	Total	2/50 (4%)	(/	Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Skin: Basal Cell Adenoma, Ba	isosquamous Ti	•	Trichoer	oithelioma			1/50 (2%)			
Overall Incidence	Total	4/50 (8%)	,	Mean 8%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
#Skin: Basal Cell Carcinoma, E NOS), or Trichoepithelic	Basal Cell Adeno	ma, Basosquar	nous Tun				4/50 (00)			
Overall Incidence	Total	4/50 4/50 (8%)	(8%)	Mean 8%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male		Female						
#Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma 8/50 (16%) 2/50 (4%)											
Overall Incidence	Total	8/50 (16%)	Mean 16%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%			
#Skin: Fibroma		2/50 (4%)				2/50 (4%)					
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%			
#Skin: Fibroma, Fibrosarcoma,	-	2/50 (4%)	Fibrous Histiocytoma		Tatal	3/50 (6%)	M C0/	CD 00/			
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	3/50 (6%)	Mean 6%	SD 0%			
#Skin: Fibrosarcoma		0/50 (0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
#Skin: Fibrosarcoma, Sarcoma						1/50 (2%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
#Skin: Fibrous Histiocytoma		0/50 (0%)				1/50 (2%)					
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#Skin: Hamartoma	Tatal	1/50 (2%)	Mana 2007	OD 00/	Total	0/50 (0%)	M 00/	0D 0V
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Skin: Keratoacanthoma		4/50 (8%)				0/50 (0%)		
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Skin: Lipoma		0/50 (40/)				4/50 (00/)		
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
#Skin: Neurofibrosarcoma or	Schwannoma (m	alignant or NOS) 0/50 (0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Skin: Neurofibrosarcoma, Ne	eurofibroma, or S	chwannoma (benign, ma 0/50 (0%)	alignant or NOS)			1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Skin: Schwannoma Malignar	nt							
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Page: 19

			Male				Female			
#Skin: Squamous Cell Carcinoma										
		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin:										
Squamous Cell Carcinoma, or Carcinoma	Basal Cell C	arcinoma, Basosquamo	ous Tumor (malignan	t or NOS),						
		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Squamous Cell Papilloma										
		0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Skin: Squamous Cell Papilloma o	or Panilloma									
oquamous con r apmoma s	upou	0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Skin: Squamous Cell Papilloma,						1/50 (2%)				
Overall Incidence	Total	5/50 (10%)	Mean 10%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Skin: Squamous Cell Papilloma,	Papilloma, o	Keratoacanthoma				1/50 (2%)				
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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			Male				Female	
#Skin: Trichoepithelioma								
		2/50 (4%)				0/50 (0%)		
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Stomach, Forestomach: Squamous Cell Carcinom								
		0/50 (0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
#Stomach, Forestomach: Squamous Cell Papilloma	a	0/50 (0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
*Testes: Adenoma		35/50 (70%)						
Overall Incidence	Total	35/50 (70%)	Mean 70%	SD 0%				
*Thymus: Thymoma Malignant								
		0/46 (0%)				0/47 (0%)		
Overall Incidence	Total	0/46 (0%)	Mean 0%	SD 0%	Total	0/47 (0%)	Mean 0%	SD 0%
*Thymus: Thymoma: Benign, Malig	nant, NOS	0/40 /00/				0/47 (00/)		
Overall Incidence	Total	0/46 (0%) 0/46 (0%)	Mean 0%	SD 0%	Total	0/47 (0%) 0/47 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS

Strain: F 344/N Tac

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

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Report Date: 06/12/2013

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

Male Female *Thyroid Gland: C-Cell: Adenoma 4/49 (8%)8/50 (16%)**Overall Incidence** Total 4/49 (8.16%) Mean 8.16% SD 0% Total 8/50 (16%) Mean 16% SD 0% *Thyroid Gland: C-Cell: Carcinoma 1/49 (2%)1/50 (2%)**Overall Incidence** Total 1/49 (2.04%) Mean 2.04% SD 0% Total 1/50 (2%) Mean 2% SD 0% *Thyroid Gland: C-Cell: Carcinoma or Adenoma 5/49 (10%) 9/50 (18%) **Overall Incidence** Total 5/49 (10.2%) Mean 10.2% SD 0% Total 9/50 (18%) Mean 18% SD 0% *Thyroid Gland: Follicular Cell: Adenoma 0/49 (0%)0/50 (0%)**Overall Incidence** Total 0/49 (0%) Mean 0% SD 0% Total Mean 0% SD 0% 0/50 (0%) *Thyroid Gland: Follicular Cell: Carcinoma 2/49 (4%)1/50 (2%)**Overall Incidence** Total 2/49 (4.08%) Mean 4.08% SD 0% Total 1/50 (2%) Mean 2% SD 0% *Thyroid Gland: Follicular Cell: Carcinoma or Adenoma 2/49 (4%)1/50 (2%)**Overall Incidence** Total 2/49 (4.08%) Mean 4.08% SD 0% Mean 2% SD 0% Total 1/50 (2%)

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N Tac

Species: RATS

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Length of Study: CHRONIC

Contract/Lab: All Laboratories

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			Male				Female			
#Tongue: Squamous Cell Carcinoma or Papilloma Squamous 0/50 (0%) 1/50 (2%)										
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Tongue: Squamous Cell Papilloma		0/50 (00()								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		
#Uterus: Deciduoma NOS						0/50 (0%)				
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Uterus: Fibrous Histiocytoma						0/50 (0%)				
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%		
#Uterus: Hemangiosarcoma										
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		
#Uterus: Leiomyoma						4/50 (00)				
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

Page: 23

			Male				Female	
#Uterus: Leiomyosarcoma						0/50 (00/)		
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Uterus: Polyp Stromal								
Overall Incidence					Total	10/50 (20%) 10/50 (20%)	Mean 20%	SD 0%
#Uterus: Sarcoma Stromal						0/50 (0%)		
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Uterus: Sarcoma Stromal or Pol	yp Stromal					10/50 (20%)		
Overall Incidence					Total	10/50 (20%)	Mean 20%	SD 0%
#Zymbal's Gland: Adenoma								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Zymbal's Gland: Carcinoma		3/50 (6%)				0/50 (0%)		
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: INHALATION Vehicle: AIR

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	Male						Female	
#Zymbal's Gland: Carcinoma or Adenoma								
		4/50 (8%)				0/50 (0%)		
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER

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Report Date: 06/12/2013

Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
					Male		
Battelle Columbus Laboratory	059601405	10/26/06	726	50(3)	19(658)	528.0	Water disinfection byproducts (Bromodichloroacetic acid)
					Female		
Battelle Columbus Laboratory	059601405	10/27/06	727	50(5)	34(694)	352.8	Water disinfection byproducts (Bromodichloroacetic acid)

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 26

			Male			Female				
#All Organs: Benign Tumors										
Overall Incidence	Total	46/50 (92%) 46/50 (92%)	Mean 92%	SD 0%	Total	41/50 (82%) 41/50 (82%)	Mean 82%	SD 0%		
		40/30 (92/0)				41/30 (02/0)				
#All Organs: Malignant Tumors										
		24/50 (48%)				23/50 (46%)				
Overall Incidence	Total	24/50 (48%)	Mean 48%	SD 0%	Total	23/50 (46%)	Mean 46%	SD 0%		
#All Organs: Malignant and Benign Tu	ımors	49/50 (98%)				47/50 (94%)				
Overall Incidence	Total	49/50 (98%)	Mean 98%	SD 0%	Total	47/50 (94%)	Mean 94%	SD 0%		
#All Organs: Hemangioma		0/50 (0%)				1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#All Organs: Hemangiosarcoma	•••••									
		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#All Organs: Hemangiosarcoma or He	mangioma	0(50 (00))				4/50 (00/)				
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%		
		0/50 (0%)				` ,				

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Tumor Incidence for Selected Control Animal Groups

Report Date: 06/12/2013

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Species: RATS Strain: F 344/N Tac Route: ORAL Vehicle: WATER

Length of Study: CHRONIC

			Male				Female		
#All Organs: Leukemia: Lymphocytic, N	-	15/50 (30%)		OD 201		19/50 (38%)		05.00	
Overall Incidence	Total	15/50 (30%)	Mean 30%	SD 0%	Total	19/50 (38%)	Mean 38%	SD 0%	
#All Organs: Mesothelioma: Benign, Ma	alignant, NOS								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#All Organs: Mesothelioma: Malignant						0/50 /00/			
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#All Organs: Osteoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#All Organs: Osteosarcoma or Osteoma	a	4/50 (00)				0/50 (00/)			
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Adrenal Cortex: Adenoma									
Overall Incidence	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N Tac

Species: RATS

Toxicology Data Management System

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Report Date: 06/12/2013

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER

Length of Study: CHRONIC

			Male			Female			
*Adrenal Medulla: Pheochromocytoma Benigr	1 Total	10/50 (20%) 10/50 (20%)	Mean 20%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
*Adrenal Medulla: Pheochromocytoma Malign	ant	0/50 (0%)				1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	
*Adrenal Medulla: Pheochromocytoma: Benig	n, Complex	, Malignant, NOS 10/50 (20%) 10/50 (20%)	Mean 20%	SD 0%	Total	2/50 (4%) 2/50 (4%)	Mean 4%	SD 0%	
#Bone: Osteoma Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Bone: Osteosarcoma or Osteoma		` '				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Brain: Astrocytoma Malignant		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 29

				Male			Female					
*Brain: Fibrous Histiocytoma 1/50 (2%) 0/50 (0%)												
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
		, ,										
*Brain: Glioma												
		0/50	(0%)				1/50 (2%)					
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			
*Brain: Granular Cell Tumor Benign			(4%)				0/50 (0%)					
Overall Incidence	Total	2/50 (4%)	,	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
*Brain: Oligodendroglioma, Glioma,												
	•		(0%)				0/50 (0%)					
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%			
*Clitoral/Preputial Gland: Adenoma												
		2/50	(4%)				8/50 (16%)					
Overall Incidence	Total	2/50 (4%)		Mean 4%	SD 0%	Total	8/50 (16%)	Mean 16%	SD 0%			
*Clitoral/Preputial Gland: Carcinoma												
			(4%)				1/50 (2%)					
Overall Incidence	Total	2/50 (4%)		Mean 4%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 30

				Male			Female			
*Clitoral/Preputial Gland: Carcinoma or Adenoma										
			(8%)				8/50 (16%)			
Overall Incidence	Total	4/50 (8%)		Mean 8%	SD 0%	Total	8/50 (16%)	Mean 16%	SD 0%	
#Ear: Neural Crest Tumor										
			(2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Harderian Gland: Carcinoma		4/50	(00()				0/50 (00/)			
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
		, ,								
#Harderian Gland: Carcinoma or Adenoma		4/50	(00/)				0/50 (00/)			
Overall Incidence	Total	1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
*Heart: Schwannoma Malignant										
			(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Intestine Large: Colon/Rect Adenoma										
• " "	T		(0%)		05.00/	-	1/50 (2%)		00.00/	
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 31

			Male				Female	
#Intestine Large: Colon/Rect Carcinoma or Adenoma	um:							
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
#Intestine Small: Ileum: Carcinoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Jejunum: Carcinoma		0/50 (00/)				0/50 /00/		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Site Unspec Carcinoma						0/50 /00/)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Intestine Small: Site Unspec Carcinoma or Adenoma								
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Islets, Pancreatic: Adenoma		0/50 (651)				4/50 (00/)		
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 32

				Male				Female	
*Islets, Pancreatic: Carcinoma		0/50	(00()				0/50 /00/		
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Islets, Pancreatic: Carcinoma or Adenoma		0/50	(0%)				1/50 (2%)		
Overall Incidence	Total	0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%
*Kidney: Renal Tubule: Adenoma		4/50	(00()				0/50 (00/)		
Overall Incidence	Total	1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Kidney: Renal Tubule: Carcinoma or Adenoma		1/50	(2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)		Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Kidney: Renal Tubule: Lipoma									
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Liver: Fibrous Histiocytoma		1/50	(2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	(2 /0)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER Page: 33

			Male				Female					
*Liver: Hemangioma 0/50 (0%) 1/50 (2%)												
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%				
*Lung: Alveolar/Bronchiolar Ade	enoma											
Overall Incidence	Total	3/50 (6%) 3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
*Lung: Alveolar/Bronchiolar Car				SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%				
*Lung: Fibrous Histiocytoma Overall Incidence	Total	, ,		SD 0%	Total	, ,	Mean 0%	SD 0%				
		´				` '						
*Lung: Squamous Cell Carcinon	na	1/50 (2%)				0/50 (0%)						
_	na Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total		Mean 0%	SD 0%				
Squamous Cell Carcinon		` '				0/50 (0%)	Mean 0%	SD 0%				

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 34

			Male				Female			
#Mammary Gland: Adenoma										
		0/50 (0%	,			1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
#Mammary Gland: Carcinoma										
		0/50 (0%	,			0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Mammary Gland: Carcinoma or Adenoma	ı	0/50 (0%	()			1/50 (2%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%		
		, ,								
#Mammary Gland: Fibroadenoma		0/50 (0%	4)			28/50 (56%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	28/50 (56%)	Mean 56%	SD 0%		
#Mammary Gland: Fibroma, Fibroadenoma										
		0/50 (0%	6)			28/50 (56%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	28/50 (56%)	Mean 56%	SD 0%		
#Mammary Gland: Fibroma, Fibroadenoma	ı, Carcinoma, or	Adenoma 0/50 (0%	4)			28/50 (56%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	28/50 (56%)	Mean 56%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 35

			Male				Female	
#Oral Cavity (Oral Mucosa Papilloma Squamous or		nx, Tooth, Gingiva):						
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Oral Cavity (Oral Mucosa Squamous Cell Carcinor		nx, Tooth, Gingiva):				•••••		
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
#Oral Cavity (Oral Mucosa Squamous Cell Carcinor Overall Incidence		quamous, or Papilloma 1/50 (2%)	Mann 20/	SD 00/	Total	0/50 (0%)	Magn 00/	SD 0%
	ı olal	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
#Oral Mucosa: Squamous Cell Carcinor	na	1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Pancreas: Adenoma								
Overall Incidence	Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%
*Pancreas: Carcinoma or Adenoma		1/EQ (20%)				0/50 (00/)		
		1/50 (2%)				0/50 (0%)		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

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Report Date: 06/12/2013

SD 0%

Mean 0%

Route: ORAL Vehicle: WATER

			Male				Female	
*Pancreas: Mixed Tumor Malignant		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
*Pituitary Gland: Pars Distali Adenoma								
Overall Incidence	Total	26/50 (52%) 26/50 (52%)	Mean 52%	SD 0%	Total	23/50 (46%) 23/50 (46%)	Mean 46%	SD 0%
						, ,		
*Pituitary Gland: Pars Distali Carcinoma or Adenoma	s or Unspec					23/50 (46%)		
Overall Incidence	Total	26/50 (52%) 26/50 (52%)	Mean 52%	SD 0%	Total	23/50 (46%)	Mean 46%	SD 0%
Prostate: Adenoma		1/50 (2%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%				
*Prostate: Carcinoma or Adenoma		1/50 (2%)						
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%				
*Salivary Glands: Adenoma								
		0/50 (0%)				0/50 (0%)		

SD 0%

Total

0/50 (0%)

Total

0/50 (0%)

Mean 0%

Overall Incidence

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 37

				Male			Female			
*Salivary Glands: Carcinoma or Adenoma		0/50 (0%)					0/50 (00/)			
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skeletal Muscle: Fibrous Histiocytoma		4/50	(00()			•••••	0/50 (00)			
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Adenoma		0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	` '	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Adenoma or	Basosquamous	Tumor Benign 0/50	(0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	,	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Adenoma, Ba	ısosquamous Tı	umor Benign, o	r Trichoe _l	pithelioma			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
#Skin: Basal Cell Carcinoma, E NOS), or Trichoepithelic	Basal Cell Adeno	ma, Basosquai	nous Tur							
Overall Incidence	Total	0/50 0/50 (0%)	(0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

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Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

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Mean 0%

SD 0%

Report Date: 06/12/2013

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER

Male **Female** #Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma 9/50 (18%) 0/50 Mean 0% Overall Incidence Total 9/50 (18%) Mean 18% SD 0% Total 0/50 (0%) SD 0% #Skin: **Fibroma** 4/50 (8%)2/50 (4%)**Overall Incidence** Total 4/50 (8%) Mean 8% SD 0% Total 2/50 (4%) Mean 4% SD 0% #Skin: Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma 6/50 (12%) 2/50 (4%)**Overall Incidence** Total 6/50 (12%) Mean 12% SD 0% Total 2/50 (4%) Mean 4% SD 0% #Skin: **Fibrosarcoma** 1/50 (2%)0/50 (0%)**Overall Incidence** Total 1/50 (2%) Mean 2% SD 0% Total 0/50 (0%) SD 0% Mean 0% #Skin: Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma 2/50 (4%)0/50 (0%)**Overall Incidence** Total 2/50 (4%) Mean 4% SD 0% Total 0/50 (0%) SD 0% Mean 0% #Skin: **Fibrous Histiocytoma** (2%)0/50 (0%)

SD 0%

Total

0/50 (0%)

Total

1/50 (2%)

Mean 2%

Overall Incidence

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 39

			Male		Female					
#Skin: Hamartoma										
		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Keratoacanthoma										
		7/50 (14%)				0/50 (0%)				
Overall Incidence	Total	7/50 (14%)	Mean 14%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Lipoma										
		1/50 (2%)				2/50 (4%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%		
#Skin:	-1	-!'(NOO)								
Neurofibrosarcoma or So	cnwannoma (m	0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin:										
Neurofibrosarcoma, Neu	ırofibroma, or S		alignant or NOS)							
		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Schwannoma Malignant										
		0/50 (0%)				0/50 (0%)				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Strain: F 344/N Tac

Species: RATS

Toxicology Data Management System

Contract/Lab: All Laboratories Tumor Incidence for Selected Control Animal Groups

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Report Date: 06/12/2013

Route: ORAL Vehicle: WATER

Length of Study: CHRONIC

			Male			Female				
#Skin: Squamous Cell Carcinoma										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Skin: Squamous Cell Carcino or Carcinoma	ma, Basal Cell C	Carcinoma, Basosquamo	us Tumor (malignan	t or NOS),						
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Skin: Squamous Cell Papillon	na	3/50 (6%)				0/50 (0%)				
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Squamous Cell Papillon	na or Papilloma	0/50 (00/)				0/50 (00/)				
Overall Incidence	Total	3/50 (6%) 3/50 (6%)	Mean 6%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Skin: Squamous Cell Papillon				na		0/50 (0%)				
Overall Incidence	Total	9/50 (18%)	Mean 18%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Skin: Squamous Cell Papillon						0/50 (0%)				
Overall Incidence	Total	9/50 (18%)	Mean 18%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER Page: 41

				Male			Female				
#Skin: Trichoepithelioma		0/50 (0%)					0/50 (0%)				
Overall Incidence	Total	0/50 (0%)		Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
#Stomach, Forestomach: Squamous Cell Carcinoma	or Papillom	a Squamous									
Overall Incidence	Total	1/50 1/50 (2%)	(2%)	Mean 2%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%		
#Stomach, Forestomach: Squamous Cell Papilloma		1/50	(2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	()	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		
*Testes: Adenoma		24/50	(600/)								
Overall Incidence	Total	34/50 (34/50 (68%)	Mean 68%	SD 0%						
*Thymus: Thymoma Malignant											
Overall Incidence	Total	0/48 0/48 (0%)	(0%)	Mean 0%	SD 0%	Total	1/48 (2%) 1/48 (2.08%)	Mean 2.08%	SD 0%		
*Thymus: Thymoma: Benign, Maligna	nt, NOS	0/40	(00()				4/40 (00)				
Overall Incidence	Total	0/48 0/48 (0%)	(0%)	Mean 0%	SD 0%	Total	1/48 (2%) 1/48 (2.08%)	Mean 2.08%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Species: RATS Strain: F 344/N Tac **Toxicology Data Management System**

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Report Date: 06/12/2013

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER

Length of Study: CHRONIC

Contract/Lab: All Laboratories

			Male		Female				
*Thyroid Gland: C-Cell: Adenoma									
		7/50 (14%)				11/50 (22%)			
Overall Incidence	Total	7/50 (14%)	Mean 14%	SD 0%	Total	11/50 (22%)	Mean 22%	SD 0%	
*Thyroid Gland: C-Cell: Carcinoma									
		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Thyroid Gland: C-Cell: Carcinoma or Adenoma		9/50 (469/)				11/50 /229/\			
Overall Incidence	Total	8/50 (16%) 8/50 (16%)	Mean 16%	SD 0%	Total	11/50 (22%) 11/50 (22%)	Mean 22%	SD 0%	
	10lai 	0/30 (10%)			10tai	11/30 (22%)	IVIEAII 2270	JD 0%	
*Thyroid Gland: Follicular Cell Adenoma	:								
		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Thyroid Gland: Follicular Cell Carcinoma	:								
		0/50 (0%)				0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
*Thyroid Gland: Follicular Cell Carcinoma or Adenoma	:								
		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS
Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 43

Male				Female							
#Tongue: Squamous Cell Carcinoma or Papilloma Squamous											
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Tongue: Squamous Cell Papilloma	1										
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Uterus: Deciduoma NOS						4/50 (20()					
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%			
#Uterus: Fibrous Histiocytoma						1/50 (2%)					
Overall Incidence					Total	1/50 (2%)	Mean 2%	SD 0%			
#Uterus: Hemangiosarcoma											
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			
#Uterus: Leiomyoma						0/50 (00/)					
Overall Incidence					Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%			

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Toxicology Data Management System

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER Page: 44

			Male			Female			
#Uterus: Leiomyosarcoma									
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Uterus: Polyp Stromal	•••••								
Overall Incidence					Total	4/50 (8%) 4/50 (8%)	Mean 8%	SD 0%	
#Uterus: Sarcoma Stromal									
Overall Incidence					Total	1/50 (2%) 1/50 (2%)	Mean 2%	SD 0%	
#Uterus: Sarcoma Stromal or Poly									
Overall Incidence					Total	5/50 (10%) 5/50 (10%)	Mean 10%	SD 0%	
#Zymbal's Gland: Adenoma		•••••							
Overall Incidence	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%) 0/50 (0%)	Mean 0%	SD 0%	
		` '				, ,			
#Zymbal's Gland: Carcinoma		1/50 (2%)				0/50 (0%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied

Contract/Lab: All Laboratories

Species: RATS Strain: F 344/N Tac

Length of Study: CHRONIC

Toxicology Data Management System

Tumor Incidence for Selected Control Animal Groups

Route: ORAL Vehicle: WATER **Page:** 45

	Male					Female				
#Zymbal's Gland: Carcinoma or Adenoma		1/50 (2%)				0/50 (0%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%		

^{*:} Denominator is number of animals with tissues examined microscopically

^{#:} Denominator is number of animals necropsied